

Calendar No. 517

111<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION**H. R. 5716**

---

IN THE SENATE OF THE UNITED STATES

JULY 22, 2010

Received

AUGUST 5, 2010

Read twice and placed on the calendar

---

**AN ACT**

To provide for enhancement of existing efforts in support of research, development, demonstration, and commercial application activities to advance technologies for the safe and environmentally responsible exploration, development, and production of oil and natural gas resources.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Safer Oil and Natural  
5 Gas Drilling Technology Research and Development Act”.

1 **SEC. 2. SUBTITLE AMENDMENT.**

2 Subtitle J of title IX of the Energy Policy Act of  
 3 2005 (42 U.S.C. 16371 et seq.) is amended in the subtitle  
 4 heading by striking “**Ultra-Deepwater and Uncon-**  
 5 **ventional Natural Gas and Other Petroleum**  
 6 **Resources**” and inserting “**Safer Oil and Natural**  
 7 **Gas Drilling Technology Research and Devel-**  
 8 **opment Program**”.

9 **SEC. 3. SAFER OIL AND NATURAL GAS DRILLING TECH-**  
 10 **NOLOGY RESEARCH AND DEVELOPMENT**  
 11 **PROGRAM.**

12 (a) PROGRAM AUTHORITY.—Section 999A of the En-  
 13 ergy Policy Act of 2005 (42 U.S.C. 16371) is amended—

14 (1) in subsection (a)—

15 (A) by striking “ultra-deepwater” and in-  
 16 serting “deepwater”; and

17 (B) by inserting “well control and accident  
 18 prevention,” after “safe operations,”;

19 (2) in subsection (b)—

20 (A) by inserting “, accident prevention and  
 21 mitigation,” after “improving safety”;

22 (B) by striking paragraph (1) and insert-  
 23 ing the following:

24 “(1) Deepwater architecture and technology, in-  
 25 cluding those for drilling to formations in water  
 26 depths greater than 1,000 feet.”; and

1 (C) by striking paragraph (4) and insert-  
2 ing the following:

3 “(4) Complementary research carried out by  
4 the Department.”;

5 (3) in subsection (d)—

6 (A) in the subsection heading, by striking  
7 “NATIONAL ENERGY TECHNOLOGY LABORA-  
8 TORY” and inserting “DEPARTMENT OF EN-  
9 ERGY”; and

10 (B) by striking “National Energy Tech-  
11 nology Laboratory” and inserting “Office of  
12 Fossil Energy of the Department”;

13 (4) in subsection (e)—

14 (A) in the subsection heading, by striking  
15 “SECRETARY OF THE INTERIOR” and inserting  
16 “OTHER FEDERAL AGENCIES”; and

17 (B) by inserting “and other agencies as  
18 appropriate, including those serving on, and col-  
19 laborating with, the Interagency Coordinating  
20 Committee on Oil Pollution Research as estab-  
21 lished under section 7001 of the Oil Pollution  
22 Act of 1990 (33 U.S.C. 2761(a))” after “Sec-  
23 retary of the Interior”; and

24 (5) by adding at the end the following:

1       “(f) PARTNERSHIPS.—In carrying out the program  
 2 under this subtitle, the Secretary shall seek to establish  
 3 partnerships with eligible research performers, as de-  
 4 scribed by section 999E, to undertake research and devel-  
 5 opment not likely otherwise to be undertaken in the ab-  
 6 sence of support from the program.”.

7       (b) PROGRAM ELEMENTS.—Section 999B of the En-  
 8 ergy Policy Act of 2005 (42 U.S.C. 16372) is amended—

9               (1) in the section heading, by striking “**ULTRA-**  
 10       **DEEPWATER AND UNCONVENTIONAL ONSHORE**  
 11       **NATURAL GAS AND OTHER PETROLEUM**” and  
 12       inserting “**SAFER OIL AND NATURAL GAS DRILL-**  
 13       **ING TECHNOLOGY**”;

14              (2) by amending subsection (a) to read as fol-  
 15       lows:

16       “(a) IN GENERAL.—The Secretary shall carry out  
 17 the activities under section 999A to maximize the benefits  
 18 of natural gas and other petroleum resources of the  
 19 United States by advancing the safe and environmentally  
 20 responsible exploration, development, and production of  
 21 those resources.”;

22              (3) in subsection (c)(1)—

23                      (A) by redesignating subparagraphs (D)  
 24                      and (E) as subparagraphs (E) and (F), respec-  
 25                      tively; and

1 (B) by inserting after subparagraph (C)  
2 the following:

3 “(D) select projects on a competitive  
4 basis;”;

5 (4) in subsection (c)(3)(A)(ii), by striking  
6 “under subsection (f)(4)”;

7 (5) in subsection (d)—

8 (A) in paragraph (6), by striking “ultra-  
9 deepwater” and inserting “deepwater”; and

10 (B) by striking paragraph (7) and insert-  
11 ing the following:

12 “(7) FOCUS AREAS FOR AWARDS.—

13 “(A) DEEPWATER RESOURCES.—Awards  
14 from allocations under section 999H(d)(1) shall  
15 focus on research, development, demonstration,  
16 and commercial application activities in areas  
17 that include—

18 “(i) technologies and systems aimed  
19 at improving operational safety and reduc-  
20 ing potential environmental impacts of  
21 deepwater exploration and production ac-  
22 tivities, including—

23 “(I) wellbore integrity, well con-  
24 trol, and blowout prevention;

1 “(II) capture and containment of  
2 oil at or near the wellhead; and

3 “(III) expanding operational ca-  
4 pabilities and efficiency of remotely  
5 operated devices and mechanics;

6 “(ii) safe and environmentally respon-  
7 sible deepwater exploration and production  
8 technologies, integrated systems, and ar-  
9 chitectures for enhancing oil and natural  
10 gas drilling and recovery, including under  
11 extreme conditions;

12 “(iii) methods and technologies for se-  
13 vere weather and ocean surface condition  
14 preparedness;

15 “(iv) utilization of exploration and  
16 production methods and materials that re-  
17 duce the potential impact of such activities  
18 on the environment; and

19 “(v) other areas as determined appro-  
20 priate by the Secretary.

21 “(B) UNCONVENTIONAL ONSHORE RE-  
22 SOURCES.—Awards from allocations under sec-  
23 tion 999H(d)(2) shall focus on research, devel-  
24 opment, demonstration, and commercial appli-  
25 cation activities in areas that include—

1 “(i) advanced coalbed methane, deep  
2 drilling, natural gas production from tight  
3 sands, natural gas production from gas  
4 shales, stranded gas, innovative exploration  
5 and production techniques, and enhanced  
6 recovery techniques;

7 “(ii) increased efficiency of energy use  
8 in exploration and production activities;

9 “(iii) utilization of exploration and  
10 production methods and materials that re-  
11 duce the potential impact of such activities  
12 on the environment;

13 “(iv) recovery, utilization, reduction,  
14 and improved management of produced  
15 water from exploration and production ac-  
16 tivities; and

17 “(v) accident prevention and mitiga-  
18 tion of unconventional natural gas and  
19 other petroleum resources exploration and  
20 production.

21 “(C) SMALL PRODUCERS.—Awards from  
22 allocations under section 999H(d)(3) shall be  
23 made to consortia consisting of small producers  
24 or organized primarily for the benefit of small

1 producers, and shall focus on areas that in-  
2 clude—

3 “(i) safety and accident prevention,  
4 environmental mitigation, waste reduction,  
5 reduction of energy use, and well control  
6 and systems integrity;

7 “(ii) complex geology involving rapid  
8 changes in the type and quality of the oil  
9 and gas reserves across the reservoir;

10 “(iii) low reservoir pressure and un-  
11 conventional natural gas reservoirs in coal-  
12 beds, deep reservoirs, tight sands, or  
13 shales; and

14 “(iv) advancing energy efficient, safe,  
15 and environmentally responsible production  
16 of unconventional oil reservoirs in tar  
17 sands and oil shales.

18 “(D) SAFETY, AND ACCIDENT PREVENTION  
19 AND MITIGATION, TECHNOLOGY RESEARCH AND  
20 DEVELOPMENT BY THE DEPARTMENT.—Awards  
21 from allocations under section 999H(d)(4) shall  
22 focus on safety, and accident prevention and  
23 mitigation, research, development, demonstra-  
24 tion, and commercial application activities in  
25 areas that may include—



1 “(i) improved technologies and best  
2 management practices for enhanced well  
3 integrity including—

4 “(I) cementing;

5 “(II) casing;

6 “(III) wellbore sealant tech-  
7 nologies;

8 “(IV) well-plugging and abandon-  
9 ment;

10 “(V) improvement and standard-  
11 ization of blowout prevention devices;

12 “(VI) actuation and pressure  
13 testing; and

14 “(VII) other well control activi-  
15 ties;

16 “(ii) research to aid in the develop-  
17 ment of industry best practices and stand-  
18 ards for workforce training, design of safe  
19 workplace environments, and safety related  
20 decisionmaking processes, including by  
21 drawing on existing research into human  
22 factors and safety related practices in  
23 fields such as the nuclear energy, aviation,  
24 and automotive industries;

1 “(iii) secondary control systems to ac-  
2 tivate blowout prevention devices and ter-  
3 minate well-flow, including—

4 “(I) deadman switches;

5 “(II) automatic shears; and

6 “(III) remote acoustic switches;

7 “(iv) technologies and methods for ac-  
8 cident mitigation, including—

9 “(I) capture, containment, or dis-  
10 persing of oil at or near the wellhead;

11 “(II) estimating flow rate;

12 “(III) diagnostic sensors to de-  
13 termine equipment malfunction; and

14 “(IV) procedures to terminate  
15 flow;

16 “(v) continuing ongoing efforts, in-  
17 cluding in resource assessment and charac-  
18 terization, and in simulation of safe and  
19 effective drilling under extreme conditions,  
20 including high temperatures and pressures;

21 “(vi) development of methodologies  
22 for risk management decisionmaking, in-  
23 cluding comparative risk analysis and  
24 quantitative risk assessment of potential  
25 for failure in the technologies, management

1 practices, and systems studies under this  
2 subsection; and

3 “(vii) other activities as described in  
4 this paragraph or as determined appro-  
5 priate by the Secretary.”;

6 (6) in subsection (e)—

7 (A) in paragraph (2)—

8 (i) in the second sentence of subpara-  
9 graph (A), by inserting “to the Secretary  
10 for review” after “submit”; and

11 (ii) in the first sentence of subpara-  
12 graph (B), by striking “Ultra-Deepwater”  
13 and all that follows through “and such Ad-  
14 visory Committees” and inserting “Pro-  
15 gram Advisory Committee established  
16 under section 999D(a), and the Advisory  
17 Committee”;

18 (B) in paragraph (4)—

19 (i) by striking “and” at the end of  
20 subparagraph (A);

21 (ii) by striking the period at the end  
22 of subparagraph (B) and inserting “;  
23 and”; and

24 (iii) by adding at the end the fol-  
25 lowing new subparagraph:

1           “(C) a summary of ongoing and planned  
2           activities aimed at improving operational safety  
3           and reducing potential environmental impacts  
4           of exploration and production.”; and

5           (C) by adding at the end the following:

6           “(6) RESEARCH FINDINGS AND RECOMMENDA-  
7           TIONS FOR IMPLEMENTATION.—The Secretary shall  
8           publish in the Federal Register an annual report on  
9           the research findings of the program carried out  
10          under this section and any recommendations for im-  
11          plementation that the Secretary determines to be  
12          necessary.”;

13          (7) in subsection (f)(2), by inserting “In car-  
14          rying out this subsection, the Secretary shall ensure  
15          that safety and accident prevention and mitigation  
16          be regularly included as specific focus areas for so-  
17          licitations.” after “consortium.”;

18          (8) in subsection (i)—

19                (A) in the subsection heading, by striking  
20                “UNITED STATES GEOLOGICAL SURVEY” and  
21                inserting “DEPARTMENT OF THE INTERIOR”;  
22                and

23                (B) by striking “, through the United  
24                States Geological Survey,”; and

1 (9) in subsection (j), by striking “National En-  
2 ergy Technology Laboratory” and inserting “Office  
3 of Fossil Energy of the Department”.

4 **SEC. 4. PROGRAM ADVISORY COMMITTEE.**

5 Section 999D of the Energy Policy Act of 2005 (42  
6 U.S.C. 16374) is amended to read as follows:

7 **“SEC. 999D. PROGRAM ADVISORY COMMITTEE.**

8 “(a) ESTABLISHMENT.—Not later than 90 days after  
9 the date of enactment of the Safer Oil and Natural Gas  
10 Drilling Technology Research and Development Act, the  
11 Secretary shall establish an advisory committee to be  
12 known as the ‘Program Advisory Committee’ (referred to  
13 in this section as the ‘Advisory Committee’).

14 “(b) MEMBERSHIP.—

15 “(1) IN GENERAL.—The Advisory Committee  
16 shall be composed of members appointed by the Sec-  
17 retary, each of whom shall be qualified by education,  
18 training, and experience to evaluate scientific and  
19 technical information relevant to the research, devel-  
20 opment, and demonstration under this subtitle.  
21 Members shall include—

22 “(A) individuals with extensive research  
23 experience or operational knowledge of oil and  
24 natural gas exploration and production;

1           “(B) individuals broadly representative of  
2           the affected interests in oil and natural gas pro-  
3           duction, including interests in environmental  
4           protection and operational safety;

5           “(C) State regulatory agency representa-  
6           tives; and

7           “(D) other individuals, as determined by  
8           the Secretary.

9           “(2) LIMITATIONS.—

10           “(A) IN GENERAL.—The Advisory Com-  
11           mittee shall not include individuals who are  
12           board members, officers, or employees of the  
13           program consortium.

14           “(B) CATEGORICAL REPRESENTATION.—In  
15           appointing members of the Advisory Committee,  
16           the Secretary shall ensure that no class of indi-  
17           viduals described in any of subparagraphs (B),  
18           (C), or (D) of paragraph (1) comprises more  
19           than  $\frac{1}{3}$  of the membership of the Advisory  
20           Committee.

21           “(c) SUBCOMMITTEES.—The Advisory Committee  
22           may establish subcommittees or ad hoc working groups for  
23           the research focus areas described in section 999B(d)(7).

24           “(d) DUTIES.—The Advisory Committee shall—

1 “(1) advise the Secretary on the development  
2 and implementation of programs under this subtitle;  
3 and

4 “(2) carry out section 999B(e)(2)(B).

5 “(e) COMPENSATION.—A member of the Advisory  
6 Committee shall serve without compensation but shall be  
7 entitled to receive travel expenses in accordance with sub-  
8 chapter I of chapter 57 of title 5, United States Code.

9 “(f) PROHIBITION.—The Advisory Committee shall  
10 not make recommendations on funding awards to par-  
11 ticular consortia or other entities, or for specific  
12 projects.”.

13 **SEC. 5. DEFINITIONS.**

14 Section 999G of the Energy Policy Act of 2005 (42  
15 U.S.C. 16377) is amended—

16 (1) in paragraph (1), by striking “200 but less  
17 than 1,500 meters” and inserting “1,000 feet”;

18 (2) by striking paragraphs (8), (9), and (10);

19 (3) by redesignating paragraphs (2) through  
20 (7) and (11) as paragraphs (4) through (9) and  
21 (10), respectively; and

22 (4) by inserting after paragraph (1) the fol-  
23 lowing:

24 “(2) DEEPWATER ARCHITECTURE.—The term  
25 ‘deepwater architecture’ means the integration of

1 technologies for the safe and environmentally re-  
2 sponsible exploration for, or production of, natural  
3 gas or other petroleum resources located at deep-  
4 water depths.

5 “(3) DEEPWATER TECHNOLOGY.—The term  
6 ‘deepwater technology’ means a discrete technology  
7 that is specially suited to address 1 or more chal-  
8 lenges associated with the safe and environmentally  
9 responsible exploration for, or production of, natural  
10 gas or other petroleum resources located at deep-  
11 water depths.”.

12 **SEC. 6. FUNDING.**

13 Section 999H of the Energy Policy Act of 2005 (42  
14 U.S.C. 16378) is amended—

15 (1) in the first sentence of subsection (a) by  
16 striking “Ultra-Deepwater and Unconventional Nat-  
17 ural Gas and Other Petroleum Research Fund” and  
18 inserting “Safer Oil and Natural Gas Drilling Tech-  
19 nology Research and Development Fund”;

20 (2) in subsection (d)—

21 (A) in paragraph (1), by striking “35 per-  
22 cent” and inserting “32.5 percent”;

23 (B) in paragraph (2), by striking “32.5  
24 percent” and inserting “25 percent”; and

25 (C) in paragraph (4)—



1 (i) by striking “25 percent” and in-  
 2 serting “35 percent”; and

3 (ii) by striking “contract manage-  
 4 ment,” and all that follows through the pe-  
 5 riod at the end and inserting “and contract  
 6 management.”;

7 (3) in subsection (f), by striking “Ultra-Deep-  
 8 water and Unconventional Natural Gas and Other  
 9 Petroleum Research Fund” and inserting “Safer Oil  
 10 and Natural Gas Drilling Technology Research and  
 11 Development Fund”; and

12 (4) at the end of the section, by inserting the  
 13 following new subsection:

14 “(g) COORDINATION AND NONDUPLICATION.—The  
 15 Secretary shall ensure, to the maximum extent practicable,  
 16 that the research activities carried out by the consortium  
 17 funded under paragraphs (1), (2), and (3) of subsection  
 18 (d), and the research activities carried out by the Depart-  
 19 ment of Energy as funded by subsection (d)(4), shall be  
 20 coordinated and not duplicative of one another.”.

21 **SEC. 7. CONFORMING AMENDMENTS.**

22 The table of contents of the Energy Policy Act of  
 23 2005 is amended—

24 (1) by amending the item relating to subtitle J  
 25 of title IX to read as follows:

“Subtitle J—Safer Oil and Natural Gas Drilling Technology Research and Development Program”;

1           (2) by amending the item relating to section  
2           999B to read as follows:

“Sec. 999B. Safer Oil and Natural Gas Drilling Technology Research and Development Program.”;

3           and

4           (3) by amending the item relating to section  
5           999D to read as follows:

“Sec. 999D. Program Advisory Committee.”.

Passed the House of Representatives July 21, 2010.

Attest:                   LORRAINE C. MILLER,  
*Clerk.*



Calendar No. 517

11<sup>TH</sup> CONGRESS  
2<sup>D</sup> Session

**H. R. 5716**

**AN ACT**

To provide for enhancement of existing efforts in support of research, development, demonstration, and commercial application activities to advance technologies for the safe and environmentally responsible exploration, development, and production of oil and natural gas resources.

AUGUST 5, 2010

Read twice and placed on the calendar